

# South-East Asia Regional Programme Review Group for Elimination of Lymphatic Filariasis

*Report of the First Meeting  
WHO/SEARO, New Delhi, 3-4 May 2005*

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## 1. INAUGURAL SESSION

Dr Derek Lobo, Regional Adviser – Leprosy & other Priority Diseases on behalf of the Regional Director and Director, Department of Communicable Diseases, WHO South-East Asia Regional Office (SEARO) welcomed the Chairperson, Members, Special Invitees and WHO Secretariat staff to the first meeting of the South-East Asia Regional Programme Review Group (RPRG). He commended the decision of the Regional Director to restructure the two RPRGs (South Asia and Mekong- Plus) into a single RPRG for the entire SEA Region, encompassing nine Lymphatic Filariasis (LF) endemic countries.

Prof. Mahroof M. Ismail, Chairperson of the SEA-RPRG, welcomed the four countries from the erstwhile Mekong-Plus group to the restructured combined group and all the members, special invitees and members of the WHO secretariat. He appreciated the new arrangement wherein for the first time, the RPRG meeting was being followed by a programme managers' meeting. He expressed his thanks to WHO for assisting the endemic Member countries for up-scaling mass drug administration (MDA) for elimination of LF and initiating preparatory work in Timor-Leste.

After formal introduction of participants, the agenda was adopted. The list of participants is at Annex 1 and the agenda at Annex 2.

## 2. OBJECTIVES

The objectives of the meeting were to:

- Review the progress of LF elimination in the nine endemic countries in the Region in relation to mapping, MDA and disability alleviation; identify constraints, and make recommendations on operational and technical issues including research needs;
- Review applications submitted by Bangladesh, India, Indonesia, Myanmar, and Sri Lanka for free supply of albendazole, and Annual Reports of Bangladesh, India, Indonesia, Nepal, Maldives, Myanmar, Sri Lanka, Thailand and Timor-Leste and to make recommendations on the quantity of supply of albendazole for MDA; and
- Identify resource gaps and suggest measures for mobilization of resources.

### **3. REPORT AND FOLLOW-UP OF SIXTH MEETING OF RPRG–COLOMBO, SRI LANKA, 4-5 OCTOBER 2004**

All RPRG members except Dr S.R. Salunke attended the meeting. The progress of Elimination of Lymphatic Filariasis (ELF) was reviewed in the five endemic countries of South Asia. The applications submitted by Bangladesh, India and Nepal for supply of albendazole tablets were reviewed. The progress of ELF was presented by respective programme managers. The implementation status of MDA was reviewed and update on community-based management of disability was discussed. Resource mobilization as the responsibility of all stakeholders was emphasized. An update on activities of the Global Alliance to Eliminate Lymphatic Filariasis GAELF executive group and drug supplies was provided; and operational research issues were identified. Monitoring and evaluation of ELF were discussed. The annual reports and applications for supply of drugs were reviewed. In total 14 salient recommendations were made by the sixth meeting of RPRG.

### **4. OVERVIEW OF GLOBAL ELF – DR GAUTAM BISWAS**

In his presentation, Dr Biswas highlighted the following points:

- There were 83 LF endemic countries in the world and elimination programme had been in progress in 38 countries. About 1.2 billion people were exposed to the risk of LF and about 10% of them (120 million) were affected with either microfilaraemia or disease manifestations;
- About 60 million people were estimated to have one or the other type of disease manifestation. About 14 million people were estimated to have chronic lymphoedema and 2.5 million hydrocele;
- The economic loss due to LF was estimated to be very huge. India alone lost US\$ 1.5 billion every year due to LF. The return on investment on LF elimination was very high, which was found to be 6:1 in China; the ratio could be higher for the SEA Region.
- About 60% of the LF problem was present in the SEAR Region, 30% in the Africa Region and the rest 10% was contributed by the Eastern Mediterranean Region (5%); the Western Pacific Region (4%) and American Region (1%);
- Mapping had been completed in 45 countries till last year and the same was in progress in eight more countries;

- Out of 429 million people targeted for MDA, 246 million were reported to have ingested the drug. The majority population was from SEA Region which targeted 380 million population : 213 million people were reported to have ingested the drugs, and
- During 2004, WHO managed the procurement and supply of 67 million albendazole tablets and 106 million DEC tablets. The impact of MDA on mf clearance in sentinel sites had been found to be very encouraging.

## **5. PROGRESS OF ELF IN THE SEA REGION – DR DEREK LOBO**

In his presentation, Dr Lobo highlighted the following points:

- The MDA with DEC + albendazole covered 51.2 million population in SEA Region during 2004;
- During 2004 India covered 360 million population with DEC alone in 190 districts while seven districts were covered with DEC + albendazole. All the other eight endemic countries in the Region implemented co-administration with DEC + albendazole in all implementation units (IUs). The number of districts covered under MDA during 2004 were 32 in Bangladesh, 202 in India, 170 (sub-districts) in Indonesia, 33 in Nepal, one (Island) in Maldives, 39 in Myanmar, eight in Sri Lanka, 336 (sub-districts) in Thailand and 13 districts in Timor-Leste. More than 80% coverage was reported in seven endemic countries excluding Maldives and Timor-Leste.
- Adequate baseline data were not collected in some areas before implementing MDA. The required number of sentinel and spot-check sites were not selected in some places.
- There is need for clear planning and selection of standardized indicators for stopping MDA.
- Disability alleviation is being augmented with model projects in Sri Lanka and Indonesia as well as future planned projects (2005-06) in Timor-Leste and Myanmar. Hydrocelectomy as routine surgery is being implemented in India, Myanmar and Sri Lanka. Camp approach is being followed in Bangladesh and India. Endemic countries have been augmenting disability alleviation due to LF.

## **6. REVIEW OF ANNUAL REPORTS AND RE-APPLICATIONS**

### **6.1 Bangladesh**

#### ***Annual Report***

Of the 64 districts in Bangladesh, 32 districts with about 70 million population were identified as endemic for LF. The district is selected as the Implementation Unit (IU) for MDA. In 2004, MDA was implemented in 10 districts (IUs) with a total population of 11.75 million. The coverage rate was reported from only one IU showing observed coverage of 75.7%. According to the Annual Report, survey for microfilaraemia was mostly carried out in 2001 to 2003, except two IUs in Meherpur where survey was done in 2004. Bangladesh received 5000 ICT cards in 2004. But results of ICT performed in May – June 2004 and used for determination of endemic districts as mentioned above are not shown in the report. There is no report on the MDA coverage in 2004. Disability management was done in the Filaria Hospital and in health centres for 1673 patients with filariasis including 288 hydrocoelectomies, though the majority of them were done in the former. Health staff were provided training in five courses with 145 trainees. The KAP study or IEC activity was not carried out in 2004, although some NGOs conducted social mobilization.

#### ***Re-application***

Bangladesh was expecting to receive external financial support from WHO Biennium, LEPRU UK/Bangladesh, LF Support Centre Liverpool, and JICA, in addition to internal sources including funds from HNPS/World Bank. Thus, programme areas are proposed to be extended to 15 districts (IUs) in 2005 covering a total of 20.40 million population.

The RPRG recommended the supply of 20.4 million tablets of albendazole to the Bangladesh ELF Programme.

### **6.2 India**

#### ***Annual Report***

The update on mapping of lymphatic filariasis distribution has been provided. During 2004 the MDA was implemented in 202 endemic districts in 20 states/Union Territories. MDA with DEC alone was undertaken in 195 districts

while co-administration with DEC+ albendazole was done in seven districts (six in Tamil Nadu and one in Kerala). According to the Annual Report, reports on the MDA coverage were obtained from 126 districts with a covered population of 158.80 million against the target population of 211.72 million, which gave a coverage rate of 75%. Reports from the remaining districts were yet to be received from peripheral areas. The map of IUs with MDA coverage indicates that most states recorded a good coverage except three eastern states – Assam, West Bengal, and Jharkhand. In addition, the coverage was less than 10% in some districts in Gujarat, which was on account of taking up MDA in selected pockets of the districts. A strong campaign for MDA covering the entire area may be necessary in these districts. Survey for microfilaraemia and disease prevalence demonstrated a very high mf rate of more than 2% in Maharashtra and Orissa, whereas a lot of patients with hydrocele and/or lymphoedema were found in Bihar. Serious Adverse Experiences (SAEs) were reported from eight states with a substantial number of people who developed fever, headache, nausea, vomiting, etc. particularly in West Bengal, although only a few individuals needed to be treated. In Maharashtra, however, all 1333 people who developed SAE needed hospital care.

### **Re-application**

Thirteen new IUs with more than 43 million population are proposed to be included for MDA during 2005, in addition to the 202 districts already covered. MDA will be implemented on 11 November 2005 in all the 243 endemic districts. Mopping up operations to improve drug coverage will be done on 12 and 13 Nov 2005. Operational research on effects of co-administration of DEC + albendazole will be continued to evaluate safety, operational feasibility, and impacts compared to DEC alone, in six districts in Tamil Nadu and one district in Kerala, for which 17.28 million tablets of albendazole are requested. Application of co-administration of DEC+Alb to all endemic districts will be decided based on the field evaluation in Tamil Nadu and Kerala. In case the stay given by the Honorable High Court is vacated, Orissa may request for supply of about nine million Albendazole tablets.

The RPRG recommended the supply of 17.05 million tablets of albendazole to India's ELF Programme.

### **6.3 Indonesia**

#### ***Annual Report***

The sub-district is selected as the Implementation Unit so far. Programme resources were provided by WHO for night blood survey in Sumatara and Kalimantan islands while ADB provided resources for MDA, night blood survey and morbidity control in central Sulawesi. Mapping was carried out in 170 sub-districts (Us) out of 2860 IUs. A single annual dose of DEC + albendazole was given in 55 IUs. The reported coverage under MDA was more than 80% in most places. The survey covering sentinel and spot-check sites was presented. The DEC dosage was streamlined to three age groups. The MDA was discontinued in south Sulawesi due to non-availability of funds. The number of lymphoedema cases were listed; no data on hydrocele patients were provided. In total 377 health personnel were trained through 13 training courses.

#### ***Re-application***

The RPRG recommended the supply of 4.6 million tablets of albendazole to the Indonesia ELF Programme.

RPRG reiterated its recommendation that this country should use DISTRICT and not sub-district as the Implementation Unit.

### **6.4 Maldives**

#### ***Annual Report***

No additional activity for MDA has been carried out in the country and the previous annual report and re-application hold good for 2004 also. Financial allocation was increased to support MDA in L. Fanadhoo Islands which has a population of 1826. About 98% of the eligible population and 86% of the total population ingested the drug.

#### ***Re-application***

There was no request for supply of drugs.

## 6.5 Myanmar

### *Annual Report*

The district is selected as the Implementation Unit. The country received funds for operation cost and IEC materials (US\$ 900) from the LF Support Centre, Liverpool. LF is endemic in 39 districts out of 63 districts in the country. Nine districts are non-endemic, with uncertain areas being 18. There are 22 endemic IUs in five provinces with a population of 17.9 million. A single annual dose with DEC + albendazole is followed in all IUs. About 40% population at risk is protected under the programme. The reported coverage was 94.2% of eligible population and 82.6% of total population of IUs. About 92% of the population was covered in surveys. Sentinel and spot-check surveys were carried out in identified areas. Streamlined dosage schedule of DEC in three age groups was followed. In total 102 surgical operations were carried out. No staff was trained during the year. Serious adverse experiences were recorded in three persons and the investigations revealed that it was not due to drugs.

### *Re-application*

The requirement of albendazole was projected to be 22.66 million tablets of 400 mg each and 56.12 million DEC tablets of 100 mg each.

The RPRG recommended the supply of 22.6 million tablets of albendazole to the Myanmar ELF Programme.

## 6.6 Nepal

The district is selected as the Implementation Unit. The country received technical and financial support of US\$ 50,000 in the shape of material for COMBI from EHP/USAID in 2003. Mapping showed that out of 75 IUs, 33 were found endemic, 10 non-endemic while 32 were in uncertain areas. Parsa district was taken up for MDA in 2003 while Makwanpur and Chitwan were added to the list in 2004. In total, 1.5 million people were covered in the ELF programme. A single annual dose with DEC + albendazole was given in all the three districts. The MDA reported coverage was 76% in Parsa, 86% in Makwanpur and 83% in Chitwan. The WHO-recommended DEC dosage schedule in three age groups was followed. The information on sentinel survey was not filled. There were 327 hydrocele patients but no information on hydrocelectomies was given. About 7200 health personnel were trained

through 190 courses. It is advised to exclude pregnant women from MDA. Quality assurance of drug (DEC) is indicated. The closing balance of albendazole was 0.7 million tablets of 400 mg each and 1.66 million DEC tablets of 100 mg each.

### ***Re-application***

There was no request for supply of drugs.

## **6.7 Sri Lanka**

### ***Annual Report***

The district is selected as the Implementation Unit. Sri Lanka obtained external financial support from WHO (for MDA and disability prevention), LF Support Centre Liverpool, Nestle Lanka, and LF Support Centre Emory University. Sri Lanka has eight IUs with a population of nearly 10 million. The reported coverage was (93.3% in total) (Table 3.2.5), although the surveyed coverage was 80.8% of the eligible population. The survey team consisted of 20 trained research assistants from National Youth Council. Coverage survey was also carried out in 30 schools, showing a coverage of 87.1%, and 74 (9.4%) MAEs among 784 children who ingested the tablet. No severe adverse episode was reported. An extensive survey for microfilaraemia was carried out for a total of 598 369 people with 316 positives (0.05%) in sentinel sites of eight IUs. In addition, special surveys were carried out for high-risk groups (inmates of prisons), demonstrating mf positive rates of 1.22 to 1.29%. Disability management was done in one IU (Kalutara) and 217 hydrocelectomies were carried out in 2004. Training of health staff was also extensively carried out from the national level to district level with 14 courses for 745 trainees in total (Table 3.4). Regarding social mobilization, the Health Education Bureau of the MbH performed KAP studies, while COMBI was implemented for the third time to assist MDA.

### ***Re-application***

A total of approximately 10 million population in eight IUs will be covered in 2005. 8.4 million albendazole tablets were requested. In addition, 30000 tablets of albendazole was requested for operational research. The RPRG recommended the supply of 8.4 million tablets of albendazole to the Sri Lanka ELF Programme.

## 6.8 Timor Leste

During 2004, an integrated approach for ELF and control of STH was developed and a National Committee on ELF established. Partnership meetings with NGOs were organized. Training modules for drug distributors were developed. The guidelines were translated into Bahasa Indonesia (200 copies of tutors guide and 5000 copies of learners guide). The country has applied for supply of albendazole. The MDA is planned to be launched in early 2005 as a pilot programme in Oecussi district.

## 6.9 Thailand

### *Annual Report*

The district is selected as the Implementation Unit. Funds were provided by the national government for training, MDA, morbidity management, surveillance, monitoring and evaluation. In total, 336 IUs covering a population of 147 728 persons are involved under the programme. Four rounds of MDA have been completed. One re-training was imparted to health staff. Adverse reactions were found to be more among persons who had been administered drugs on empty stomach as compared to those who consumed the drugs after breakfast or meal. The DEC dosage was streamlined to four age groups. The overall coverage of MDA was 85% of the eligible population and about 80% of the total population. The MF rate was nil in most IUs, while 15 IUs showed 1-5 mf carriers in the surveys. Out of 336 IUs, more than 80% MDA coverage was obtained in 281 IUs, 65%-79% in 49 IUs, less than 65% in five IUs and one sub-village was not given MDA. Five cases of hydrocele were recorded but no hydrocelectomy was done. In total, 102 staff members were imparted training through two training courses. KAP surveys were conducted for social mobilization. SAEs were not encountered.

### *Re-application*

The application for 175 200 tablets of albendazole for MDA 2006 was approved.

## 7. COMPLETION OF MAPPING

Out of 11 countries in the SEA Region, nine are LF endemic (Bhutan and DPR Korea are not endemic). The mapping of LF has been completed in Bangladesh, Maldives, Thailand and Timor-Leste. In the remaining countries,

out of known endemic areas mapping completion is 88% in India, 76% in Sri Lanka, 71% in Myanmar, 57% in Nepal and 6.3% in Indonesia. The constraints for mapping were inaccessibility of areas due to civil security situation in Nepal and Sri Lanka, difficult terrain in Nepal, defective ICT cards recalled by the manufacturer from Sri Lanka, use of more complicated approaches in some areas, and the frequent change of national programme managers in some others.

## **8. ISSUES RELATED TO SCALING-UP OF MDA**

Mapping is a prerequisite for scaling up of MDA. If scaling up of MDA is taken up without completion of mapping (along with baseline data collection in sentinel and spot-check sites), the implementation and impact of MDA will face many hurdles and it will be very difficult to interpret the data with accuracy. Scaling should cover the entire population at risk. The ELF programme is to be extended to new endemic countries which have yet to launch the programme. The implementation should achieve high coverage (drug compliance), so that the goal can be achieved sooner than later. Disability alleviation will not only confer great relief to the affected individuals but also enhance community participation in the programme. Epidemiological monitoring as per guidelines will enable programme managers to undertake corrective measures.

## **9. MONITORING AND EVALUATION**

Important aspects of monitoring and evaluation were identified by RPRG

The RPRG emphasized that monitoring played a pivotal role in implementation of the programme and in assessment of the strategy for making necessary changes wherever warranted. Monitoring would enable programme managers at all tiers to achieve the objectives and goals as per targets. It also facilitated evaluation of the impact of intervention measures and provided information when to terminate MDA. If there was deviation in expected results, programme managers could make needful changes in the strategy. The most important components in the monitoring of ELF encompassed the proportion of people actually ingesting the drugs and the impact of MDA on the prevalence of microfilaraemia.

Observations and suggestions by RPRG on monitoring and evaluation:

- Specific indicators of monitoring are to be identified for comparison in space and time. Personnel involved in the monitoring should be familiar with the indicators and correct methods for collecting data. Health personnel should be trained on the importance and significance of different components of monitoring for successful implementation of the programme.
- Correct mapping is a prerequisite for identifying endemic areas. The baseline data in every implementation unit should be collected as per guidelines. The geographical coverage of both rural and urban population needs to be done through area-wise monitoring.
- The choice of sentinel and spot-check sites should be made as per guidelines in all the IUs. The mf rate, mf density and disease rate should be measured in all selected sites. The side-effects of a drug, if any, should be monitored promptly for enabling the rapid response teams to provide symptomatic treatment. Serious adverse events should be reported to the GPELF early and investigations should commence immediately.

## 10. STRATEGIES FOR STOPPING MDA

The following steps have been suggested for stopping MDA:

- Prior to the fifth round of effective MDA coverage, conduct a mf survey in the sentinel and spot check sites in each Implementation Unit for mf prevalence as well as density. In addition, perform ICT test in children aged 2-4 years. If mf rate is <1% and there are no child positives as per ICT Test, it may be assumed that criteria of stopping MDA are met.
- The fifth round must already have been planned and should take place after this testing, irrespective of the mf survey and ICT Test results.
- In cases where there are only one or two positives or equivocal results, further investigations to confirm the judgment that transmission persists should be undertaken before deciding to continue MDA after the fifth round.

## **11. TAG 6 - MATTERS FOR RPRG – PROF DATO C.P. RAMACHANDRAN**

In his presentation, Prof. Dato C.P.Ramachandra, Chairman, Technical Advisory Group (TAG) highlighted the following points.

- The last meeting of TAG was held in February 2004 and the next meeting is scheduled to be held in September 2005. The TAG acknowledged that the programme from the year 2000 to 2004 has grown from three to 38 countries and has treated to date from 12 to 300 million people annually.
- At the last meeting of TAG, members were impressed with the wealth of data being submitted by national programmes and revealed substantial progress being achieved. The TAG was particularly impressed with the trends in microfilaria reduction in most programmes at the country level, which were consistent with expected results and supports.
- The TAG-5 in its deliberations discussed and revised: (i) Development of monitoring and evaluation tools; (ii) Strategic issues in relation to scale-up in programmes (TAG noted this was most acute in the African region where 29 out of 39 endemic countries have yet to begin MDA); and (iii) On chemotherapy-TAG welcomed the review of evidence on the added value of albendazole when co-administered with either DEC or ivermectin and strongly supported its continued administration by national programmes.
- The TAG expressed its concern that India had not yet adopted the two-drug regimen for LF elimination and requested India to actively consider adopting it in view of the increasing evidence that DEC + albendazole was superior to DEC alone.
- On Social Mobilization- TAG recognized that it was critical for sustaining and improving the coverage and compliance with MDA and recommended that social mobilization should be an integral part of planning and evaluation process of the programme at the national level.
- With reference to disability prevention programmes, TAG recognized the substantial challenges in achieving adequate coverage and recommended that programme managers and NGOs

initiate home care, self care and surgery programmes of high quality, TAG- also expressed concerned about the urgent need for operational research at the global regional and national levels to assist the programme in achieving elimination goals.

- Many other technical issues in relation to programme implementation were also discussed at TAG-5, details of which are indicated in TAG-5 report. Defining research needs and defining its agenda and finding solutions has been an important focus of TAG and the recent scientific meetings on operational research held in Philadelphia, USA in November 2004 and in Miami, USA in January 2005, did address some of these issues. In May 2005 the TDR is planning to hold a scientific working group to define operational research needs of the global programme and prioritize it.
- The TAG-6 at its forthcoming meeting in September 2005 will, among other technical issues, address specifically some of the more urgent and immediate scientific and technical needs of the programme such as: (i) Stopping of MDA-the end-game strategy; (ii) Verifying absence of transmission in countries that have reached elimination status; (iii) How to achieve high coverage and compliance in MDA; (iv) Mid-term evaluation and assessment of impact; and (v) Programme synergy: multi- disease initiative and interaction with other programme. These and others will be some of the challenges TAG would need to address now and in the years ahead.

## 12. OPERATIONAL RESEARCH

The operational research areas needed for ELF programme have been identified. The indicators, their standardization for stopping MDA and measurement parameters need to be developed. Standardization of protocols for verification of absence of active transmission in erstwhile endemic countries is to be done on priority. Improved diagnostic tools and suitable protocols to increase sensitivity and specificity to measure the transmission indices are needed since some implementation units will be completing five rounds or more after the next round of MDA. Behavior change communication and anthropological research for developing strategies for better drug coverage and disability prevention are to be field-tested to

improve drug compliance and disability alleviation or prevention of acute episodes due to lymphoedema. Assessing the complications and recurrence of different hydrocele surgical procedures in the context of increasing access to hydrocele patients in endemic country are in progress in limited areas, which need to be augmented after completion of time-bound field operational studies. The TDR scientific working group has identified the operational research areas in LF endemic areas.

### **13. FUNDING ISSUES**

All endemic countries face a lack of adequate funds for expansion of MDA. There is an urgent need for local-level funds-raising. The limited funds are to be utilized judiciously to obtain rational per capita cost of MDA which was found to be high in some places. A regional-level donor mobilization meeting on 'neglected diseases' is planned in October 2005. It is suggested to encourage and support national and sub-national donor mobilization efforts.

Financial assistance from Bill and Melinda Gates Foundation, DFID, Aus Aid and others has been highly useful but it was not sufficient to cover the entire needs. The suggestion of the Regional Director proposing the meeting of partners without restricting to LF alone but integrating it into other neglected tropical diseases- lymphatic filariasis, kala-azar, STH and leprosy was commended by the RPRG. The partners' role in ELF like LEPR UK, JICA, Sasakawa Foundation and GlaxoSmithKline, etc. was acknowledged with gratitude. Resource constraint has been posing a major hurdle in augmenting disability alleviation and completion of mapping.

### **14. LF IN CHILDREN**

Prof. R.K. Shenoy, former Head, Department of Medicine, T.D. Medical College Hospital, Alappuzha, Kerala, India in his presentation highlighted the epidemiological observations made in his WHO-supported centre. About 30% of mf positives were below 20 years of age and 16.3% were below 10 years of age. Filarial disease in the 15-years-and-less age group was 32%. The mf prevalence in the less-than-10-years age group was 30% of adult rates while the 10-19 years age group showed 69% of adult rates. Histopathology showed predilection of disease in children. Antigenaemia by ELISA or ICT test showed 6% in two year-old children and less than 30% in the four year-

old. Antigenaemia was detected even among children showing negative results in night blood examination. Ultrasonography revealed predilection of adult worms in inguinal or auxiliary lymph nodes of pre-uberal girls and *W. bancrofti* adult worm in in scrotal lymph vessels of pre-puberty boys.

A cross-sectional study of 3-15 years-old children was done in Cherthala and Ambalapuzha, talukas endemic for *B. malayi* in Alappuzha district of Kerala. Children in the 3-15 years age group were screened for mf and clinical manifestation. Night blood smears for mf were collected after 9.30 pm. Filter paper samples of blood were collected to detect IgG4 antibody and tested by Brugia Rapid Test in microbiology and parasitology, School of Medical Sciences, University Sains Malaysia, which collaborated in the study. Five ml venous blood was drawn for mf count by Nucleopore membrane filtration technique. Doppler sonography was done to locate adult worm nests with FDS. Lymph vessels and lymph nodes in the inguinal, thigh, popliteal regions of legs, axillae, arms, epitrochlear regions were examined. Lymphocintigraphy scanning was done using Gamma camera. After investigation, all enrolled children were administered a single dose of DEC @ 6 mg/kg and 400 g Albendazole. Foot hygiene was practised to prevent ADL attacks. It is planned to follow up the children every six months for a further period of three years. Blood slides from 4500 children were sent for IgG4 and 648 out of 2995 samples were positive while night blood examination revealed 15 positive for mf giving a ratio of 1:43 between the two tests. Lymphosintigraphy in 29 children revealed lymph vessel dilatation common in infected children.

Prof. C.P. Ramachadran said that the burden of lymphatic filariasis had been under-stated and incompletely documented because children were under-represented in surveys, and long interval for visible signs and low diagnostic assay sensitivity precluded young children. He highlighted the correlation of prevalence in children 10-years-old, 10-19 years old and prevalence in adults. The differences in the prevalence of mf and antigenaemia showed that the latter technique showed more than three times in Cook Islands, nearly double in Haiti and nine times in Tanzania as compared to the former technique. Non-pathogonomic lesions were common but negative for microfilaraemia. Ultrasound examination of FDS showed conical presenting signs in nine asymptomatic children, seven mf positive and six with difference lymphagietesia. Thus the early detection by the above technique will benefit children.

## 15. RECOMMENDATIONS

- (1) The SEA-RPRG recommends all Member states to include additional members from non-governmental and private sectors to strengthen their national task forces. It appreciates the formation of State Task Forces and State Technical Advisory Committees in some states/UTs in India and recommends that state task forces be formed in all LF endemic states and other countries like Indonesia and Myanmar.
- (2) The SEA-RPRG recommends the integration of ELF programme activities into other tropical diseases like malaria, STH, kala-azar, yaws, and leprosy, etc. wherever feasible so as to implement these public health interventions cost-effectively.
- (3) The SEA-RPRG urges Member states which have not yet completed mapping, to make all efforts to complete the mapping by the end of 2005 or positively by 2006;
- (4) The SEA RPRG requests Member states to mobilize national and multilateral/ bilateral partners to support LF elimination. It urges them to explore the possibility of cost-saving or efficiencies in implementation of MDA and related activities.
- (5) The SEA-RPRG observed that some countries reported the mild adverse reactions as serious adverse experiences (SAEs) in their annual reports. Member countries should only report events which fall under the category of SAE as defined in WHO guidelines and complete the standard investigation form for all SAEs.
- (6) The SEA-RPRG reiterates that MDA programmes should ensure quality assurance of DEC and procure DEC only from WHO pre-qualified manufacturers. In case other manufacturers are chosen, technical assistance of WHO may be sought to audit their GMP (Good Manufacturing Practices) and GLP (Good Laboratory Practices) standards.
- (7) The SEA-RPRG observed that information provided in some annual reports and re-applications is incomplete. It urged Member states to provide complete information in annual reports and re-applications in-order to facilitate in depth assessment of the programme and appropriate technical advice.
- (8) The SEA-RPRG expressed concern that the actual drug coverage in some countries/areas was substantially low. It recommends that

countries should give high priority to social mobilization and other preparatory activities in order to ensure that the drug coverage (compliance) is increased. The reported coverage should be cross-checked by the recommended surveyed coverage.\*

- (9) The SEA-RPRG having noted that MDA was undertaken in some IUs without collection of baseline data, recommends that Member states should ensure collection of baseline parasitological data before further MDA scale-up.
- (10) The SEA-RPRG observed that all endemic countries had addressed the issue of preventing LF-related disabilities; however, progress had been very slow and countries are urged to expand their disability prevention activities to cover all MDA-implemented IUs without delay.
- (11) Since SEA is the Region with the highest burden of filariasis, the RPRG recommends that the Regional Director may consider appointment of a full-time staff member to be assigned to assist the Regional Adviser for providing technical assistance to Member States.

### 15.1 Bangladesh

- (1) Complete report on mapping including the methodology used and the ICT positive rate, should be made available for review by the RPRG.
- (2) A mission comprising RPRG members and WHO be undertaken to independently review the progress of LF elimination activities.
- (3) The SEA-RPRG recommends supply of 20.4 million tablets of albendazole for MDA in 2005.

### 15.2 India

- (1) The RPRG suggests that steps be taken to improve the drug coverage rate (actual ingestion of drugs). It should also provide data on mf rates from sentinel sites, information on disability prevention and social mobilization activities.

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\* Reference: WHO CDS CPE CEE 2005 50 - Monitoring and Epidemiological Assessment of the Programme to Eliminate Lymphatic Filariasis (LF)

- (2) The national programme is requested to provide information on endemicity of the districts covered in 2004.
- (3) The SEA-RPRG regrets to note that India is yet to implement the DEC + albendazole regimen for MDA in all the endemic districts and urges India to adopt the 2-drug regimen especially in view of evidence globally, regionally and within India indicating the superiority of DEC + albendazole over DEC alone and the additional benefit of reducing the STH burden.
- (4) The SEA-RPRG recommends supply of 17.05 million tablets of albendazole to national programme of ELF for MDA in 2005.

### **15.3 Indonesia**

- (1) The SEA-RPRG urges Indonesia to complete mapping before the end of 2006 in all provinces, choosing the district as the Implementation Unit instead of sub-district. This will make mapping faster and cost effective.
- (2) Scaling up of MDA should be in geographically contiguous endemic districts/provinces.
- (3) The SEA-RPRG noted that Indonesia procured albendazole from their own funds. It urges the country to use donated albendazole and utilize the funds thus saved for other programme activities.
- (4) The SEA-RPRG recommends supply of 4.569 million tablets of albendazole to national programme of ELF for MDA in 2005.

### **15.4 Maldives**

The SEA-RPRG recommends continuation of ELF programme in the Fonadhoo island in Maldives for five years to achieve elimination of LF.

### **15.5 Thailand**

- (1) The SEA-RPRG appreciates the progress made in Thailand covering the entire endemic population with MDA with three rounds by 2005.
- (2) The SEA-RPRG recommends supply of 175 000 tablets of albendazole to national programme of ELF for MDA in 2006.

## 15.6 Sri Lanka

- (1) The SEA-RPRG appreciates the progress made in Sri Lanka covering the entire endemic population with MDA with three rounds by 2004.
- (2) The SEA-RPRG recommends supply of 8.4 million tablets of albendazole to national programme of ELF for MDA in 2005.

## 15.7 Myanmar

- (1) The SEA-RPRG appreciates the progress made in Myanmar with MDA and especially for conducting them at low cost and still achieving high drug coverage.
- (2) The SEA-RPRG recommends supply of 22.657 million tablets of albendazole to national programme of ELF for MDA in 2005.

## 15.8 Nepal

- (1) The SEA-RPRG appreciates the efforts for completing mapping and scale-up of MDA in Nepal
- (2) The SEA-RPRG notes with concern the high per capita cost per MDA coverage and requests the national programme to explore the possibility of reducing the implementation cost of MDA.

## 15.9 Timor-Leste

The SEA-RPRG appreciates commencing of MDA in Timor-Leste in 2005 using an integrated approach with STH and yaws.

## 16. CLOSING SESSION

The first SEA-RPRG expressed great appreciation for inclusion of large number of implementation units for MDA during 2004. It expressed its grateful thanks to the Regional Director and other officials and staff of the Regional Office for the excellent arrangements made for conducting the meeting.

## Annex 1

### LIST OF PARTICIPANTS

#### Members

Prof. Mahroof M. Ismail  
Professor Emeritus  
Faculty of Medicine  
University of Colombo  
159 Kynsey Road, Colombo  
Sri Lanka

Prof. Dato C.P. Ramachandran  
8A-4-4, Belvedere  
1/63, Off Jalan Tunku  
Bukit Tunku  
50480 Kuala Lumpur  
Malaysia

Dr P.K. Das  
Director  
Vector Control Research Centre  
Indira Nagar  
Pondicherry 605006  
India

Professor R. Krishna Shenoy  
Former Professor and HoD of Medicine  
Chief of Filariasis Chemotherapy Unit  
T.D. Medical College Hospital  
Alleppey 688011, Kerala  
India

Dr S.R. Salunke  
Director General of Health Services  
Directorate of Health Services  
Government Dental College Bldg. 4<sup>th</sup> Floor  
P.D' Mello Road, Mumbai 40001  
India

Dr Somel Kojima  
Deputy Director  
Centre of Medical Science  
International University of Health and Welfare  
Otawara City  
Tochigi Prefecture 324-8501  
Japan

#### Special Invitee

Dr Sombat Chayabejara  
107 Soi Pattanankam 53  
Suanluang, Bangkok 10250, Thailand

#### Liverpool School of Tropical Medicine

Mrs Joan Fahy  
Programme Coordinator  
Lymphatic Filariasis Support Centre  
Liverpool School of Tropical Medicine  
Pembroke Place, Liverpool L3 5QA, U.K.

#### Glaxo SmithKline

Mr Andy Wright  
Director  
Lymphatic Filariasis Elimination Programme  
Global Community Partnerships  
Glaxo SmithKline  
WL G 39, GW House West  
Berkeley Avenue, Greenford, U.K.

#### WHO Secretariat

Dr Jai P. Narain, Director  
Department of Communicable Diseases,  
WHO/SEARO

Dr Gautam Biswas, Medical Officer,  
Lymphatic Filariasis, WHO/HQ.

Dr Derek Lobo, Regional Adviser,  
Leprosy & other Priority Diseases,  
WHO/SEARO.

Dr Padmasiri, Short Term Professional-  
Elimination of Lymphatic Filariasis and Control  
of Soil – transmitted Helminthiasis,  
WHO/SEARO.

Dr C.K. Rao, National Professional Officer –  
Lymphatic Filariasis,  
WHO Representative's Office, India.

## **Annex 2**

### **AGENDA**

- (1) Opening Remarks
- (2) Introductions
- (3) Adoption of Agenda
- (4) Report of the 6<sup>th</sup> Meeting of the South Asia Regional Programme Review Group for Elimination of Lymphatic Filariasis, Colombo, Sri Lanka, 4-5 October 2004.
- (5) Follow-up actions from the 6<sup>th</sup> Meeting of South Asia RPRG.
- (6) Overview of Global ELF programme –Summary.
- (7) Progress of ELF implementation in SEAR –Summary.
- (8) Review of Annual Reports and Re-applications.
- (9) Completion of mapping in the countries of South East Asia.
- (10) Issues related to scaling up on MDA in the countries of South East Asia.
- (11) Monitoring and Evaluation – New Guidelines.
- (12) Strategies for eliminating persistent foci, stopping MDA in implementation units acquiring interruption of transmission, and assessment techniques of elimination status.
- (13) TAG 6 – Matter for RPRG.
- (14) Operational Research Issues.
- (15) Funding Issues and Future Planning.
- (16) LF in Children – Presentation of results of an ongoing study.
- (17) Recommendations & Closing Remarks.

### Annex 3

## PROGRAMME

#### Tuesday, 3 May 2005

- 08.30-09.00 Registration
- 09.00-09.30 **Opening Session**
- Welcome- Dr Derek Lobo, Regional Adviser, Leprosy.
  - Remarks-Prof. M.M Ismail, Chairperson, SEAR RPRG
  - Introductions
  - Adoption of Agenda
- Technical Session**
- 10.00 – 10.20 Report of the 6<sup>th</sup> RPRG Meeting, Colombo, 4-5 October 2004  
– Prof. M.M. Ismail
- 10.20-10.30 Follow-up action from the 6<sup>th</sup> RPRG Meeting- Dr. Derek Lobo
- 10.30-10.45 Overview of Global ELF Programme – Dr. Gautam Biswas
- 10.45-11.00 Progress of ELF implementation in SEAR – Dr. Derek Lobo
- 11.00-12.30 Review of Annual Reports & Re- applications
- Bangladesh – Prof. S.Kojima / Dr. S.R. Salunke
  - India- Prof. M.M.Ismail / Prof. S. Kojima
  - Indonesia- Prof. C.P.Ramachandran / Prof. R.K.Shenoy
- 14.00-15.00 Review of Annual Reports & Re-applications
- Maldives – Dr. P.K.Das / Dr. S.R. Salunke
  - Myanmar – Prof. C.P.Ramachandran / Prof. M.M.Ismail
  - Nepal – Prof. M.M.Ismail / Prof. R.K.Shenoy
- 15.30-16.30 Review of Annual Reports & Re-applications
- Sri Lanka – Prof. R.K.Shenoy / Prof. S.Kojima
  - Thailand – Prof. C.P.Ramachandran / Dr. P.K.Das
  - Timor-Leste – Prof. C.P.Ramachandran / Dr. P.K.Das

**Wednesday, 4 May 2005**

- 09.00 – 10.30 Discussion on Priority Issues
- Completion of mapping in the countries of South – East Asia.
  - Scaling up of MDA in the countries of South-East Asia.
  - Scale-up of disability alleviation programmes
- 11.00 – 11.30 Introduction to Monitoring and Evaluation – New Guidelines – Dr. Gautam Biswas.
- 11.30 – 12.00 Discussion on strategies for eliminating persistent foci, stopping MDA in implementation units acquiring interruption of transmission, and assessment techniques of elimination status – Dr.P.K.Das / Dr. Gautam Biswas
- 12.00 – 12.30 LF in Children – Presentation of results of an ongoing study – Prof. R.K. Shenoy
- 14.00 – 15.00 Other Issues
- TAG 6: Matters for RPRG – Prof. C.P. Ramachandran
  - Funding issues and future planning – Prof. C.P. Ramachnadran
- 15.00 – 15.30 Recommendations and Closing Remarks.